

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Zep(R) Root Kill

EPA ID Number: 56576-1-40849

Material number : ZROOT24

Manufacturer or supplier's details

Company : Zep Commercial Sales & Service, a unit of Zep, Inc.

Address : 350 Joe Frank Harris Parkway, SE
Emerson, GA 30137

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded**For a Transportation Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616**Recommended use of the chemical and restrictions on use**

Recommended use : Drain and Sewer Care

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance	crystalline
Colour	blue
Odour	odourless

GHS ClassificationAcute toxicity (Oral) : Category 3
Skin irritation : Category 2
Eye irritation : Category 2A**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H301 Toxic if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
COPPER SULFATE, PENTAHYDRATE	7758-99-8	>= 90 - <= 100

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Get medical attention.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse.
If skin irritation persists, call a physician.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If swallowed	: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	: Effects are dependent on exposure (dose, concentration, contact time). Effects are immediate and delayed. Symptoms of overexposure may include disorientation; dizziness; and confusion. May progress to unconsciousness, paralysis, and convulsions. Symptoms may include irritation, redness, pain, and rash. Toxic if swallowed. Causes skin irritation. Causes serious eye irritation. Review section 2 of SDS to see all potential hazards.
Notes to physician	: Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray jet Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Sulphur oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Standard procedure for chemical fires.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust. |
| Environmental precautions | : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : Keep in suitable, closed containers for disposal. |

SECTION 7. HANDLING AND STORAGE

- | | |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling | : Avoid formation of respirable particles.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations. |
| Conditions for safe storage | : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards. |
| Materials to avoid | : Store and keep away from bases and alkalies. |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

Eye protection	: Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles with pure water. Safety glasses
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: crystalline
Colour	: blue
Odour	: odourless
Odour Threshold	: not determined
pH	: No data available
Melting point/freezing point	: No data available
Boiling point	: 560 °C
Flash point	: No data available
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 2.284 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

Viscosity, kinematic : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

Incompatible materials : Bases

Hazardous decomposition products : Copper oxides
Sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION**Potential Health Effects**

Aggravated Medical Condition : None known.

Symptoms of Overexposure : Effects are dependent on exposure (dose, concentration, contact time).
Effects are immediate and delayed.
Symptoms of overexposure may include disorientation; dizziness; and confusion. May progress to unconsciousness, paralysis, and convulsions.

Symptoms may include irritation, redness, pain, and rash.

Carcinogenicity:**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

No data available

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

Skin corrosion/irritation**Product:**

Remarks: Irritating to skin.

Serious eye damage/eye irritation**Product:**

Remarks: Irritating to eyes.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential**Product:**

Partition coefficient: n-octanol/water : Remarks: No data available

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information

: Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues

: The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging

: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.**SECTION 14. TRANSPORT INFORMATION**

Transportation Regulation: 49 CFR (USA):

UN3077, NOT REGULATED AS HAZARDOUS MATERIALS, 9, - Limited quantity

Transportation Regulation: IMDG (Vessel):

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (COPPER SULFATE, PENTAHYDRATE (RH)), 9, III - Limited quantity

Transportation Regulation: IATA (Cargo Air):

UN3077, Environmentally hazardous substance, solid, n.o.s., (COPPER SULFATE, PENTAHYDRATE (RH)), 9, III - Limited quantity

Transportation Regulation: IATA (Passenger Air):

UN3077, Environmentally hazardous substance, solid, n.o.s., (COPPER SULFATE, PENTAHYDRATE (RH)), 9, III - Limited quantity

Transportation Regulation: TDG (Canada):

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (COPPER SULFATE,

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

PENTAHYDRATE (RH)), 9, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Pesticide Labeling Information Required Under U.S. FIFRA Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive - causes irreversible eye damage.

May be fatal if swallowed.

Harmful if absorbed through skin.

Observe label precautions.

This pesticide is toxic to fish and aquatic invertebrates.

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
COPPER SULFATE, PENTAHYDRATE	7758-99-8	10	10

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

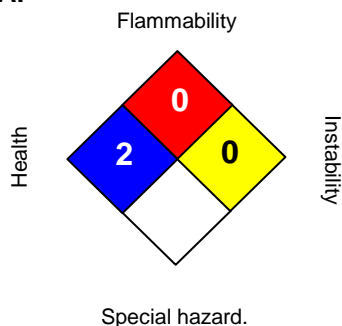
The components of this product are reported in the following inventories:

DSL All components of this product are on the Canadian DSL
TSCA On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	2*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms



Signal word

Hazard statements

Precautionary statements

Danger:
 : Toxic if swallowed. Causes skin irritation. Causes serious eye irritation.

Prevention: Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ eye protection/ face protection.
Response: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation

ZEP ROOT KILL ZROOT24

Version 1.1

Revision Date 06/11/2018

Print Date 02/04/2019

persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulation.

Version:	1.1
Revision Date:	06/11/2018
Print Date:	02/04/2019

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.